

CLAIMS

What is claimed is:

1. A head support for minimizing snoring, comprising:

5 a pillow with a support chamber for supporting an individual's head at variable heights;

an automated adjustment mechanism to automatically inflate or deflate the support chamber to reduce or eliminate the snoring by raising or lowering the head of the individual.

10 2. The head support according to claim 1, wherein the automated adjustment mechanism comprises:

a pressure sensor, coupled to the support chamber, configured to sense pressure within the support chamber; and

15 a pressure generator, coupled to and responsive to the pressure sensor, configured to increase or decrease pressure within the support chamber by inflation or deflation, respectively.

20 3. The head support according to claim 2, wherein the pressure generator is configured to inflate or deflate the support chamber with a gas mixture comprising at least one of nitrogen and oxygen.

25 4. The head support according to claim 2, wherein the pressure generator is configured to inflate or deflate the support chamber with a liquid.

5. The head support according to claim 1, wherein the automated adjustment mechanism includes a storage chamber, coupled to the support chamber, in which a fluid is transferred to or from the storage chamber depending on whether the support chamber is to inflate or deflate, respectively.

30 6. The head support according to claim 2, wherein the pressure generator comprises an air pump.

7. The head support according to claim 6, wherein the air pump is electro-mechanical.

8. The head support according to claim 1, further comprising a pad to cover the support chamber and to provide comfort.

9. The head support according to claim 1, wherein the automated adjustment mechanism is configured to inflate and deflate the support chamber between a first height and a second height in a constant and automatic manner.

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10. A head support comprising:
a pillow with a support chamber for supporting an individual's head at variable heights; and
an inflating and deflating device, coupled to the support chamber; to change the height of the head support by deflating or inflating the support chamber in an automated and gradual way, thereby reducing or preventing neck pain of the individual.

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11. The head support according to claim 10, wherein the inflating and deflating device comprises:

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a pressure sensor, coupled to the support chamber, that senses vibrations caused by the individual; and
a pressure generator, coupled to and responsive to the pressure sensor, configured to increase or decrease pressure within the support chamber via inflation or deflation, respectively.

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12. The head support according to claim 11, wherein the pressure generator is configured to inflate or deflate the support chamber with a gas mixture comprising at least one of nitrogen and oxygen.

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13. The head support according to claim 11, wherein the pressure generator is configured to inflate or deflate the support chamber with a liquid.

14. The head support according to claim 10, wherein the inflating or deflating device includes a storage chamber, coupled to the support chamber, in which a fluid is transferred to or from the storage chamber depending on whether the support chamber is to inflate or deflate.

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15. The head support according to claim 11, wherein the pressure generator comprises an air pump.

16. The head support according to claim 15, wherein the air pump is electro-
10 mechanical.

17. The head support according to claim 10, further comprising a pad to cover the support chamber and to provide comfort.

18. The head support according to claim 10 wherein the inflating or deflating device is configured to inflate and deflate the support chamber between a first height and a second height in a constant and automatic manner.

19. A method for preventing snoring by a patient using a head support comprising:
20 establishing a first height of the head support; and
automatically adjusting the head support repeatedly between a first level and a second level, either higher or lower than the first height, during a sleep phase of the patient using the head support.

20. The head support according to claim 19, wherein the automatically adjusting step comprises:
25 sensing pressure within a chamber portion of the head support; and
in response to the sensing pressure, adjusting the pressure within the chamber.

21. The head support according to claim 20, wherein the pressure adjusting step comprises inflating or deflating the chamber portion within the head support with a fluid.

22. The method according to claim 19, wherein the automatically adjusting step is performed in a constant manner.

23. The method according to claim 19, wherein the automatically adjusting step is performed in a varied manner.

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24. A head support comprising:

a pillow with a chamber for supporting an individual's head at variable heights; and

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a lifting and lowering device, located within the chamber, to change the height of the head support by elevating or lowering the lifting and lowering device within the chamber in an automated and gradual way, thereby reducing or preventing sleep discomfort of the individual.

25. The head support according to claim 24, further comprising:

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a pressure sensor, coupled to the chamber, configured to sense snoring vibrations caused by the individual; and

an electric motor, coupled to the lifting and lowering device and responsive to the pressure sensor, configured to drive the lifting and lowering device to cause the chamber to rise or lower.

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26. The head support according to claim 24, further comprising a pad to cover the chamber and to provide comfort.

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27. The head support according to claim 24, wherein the lifting and lowering device moves the head support between a first height and a second height in a constant and automatic manner.

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28. A pillow system configured to provide support for a person's head while resting, comprising:

a head-sized pillow member having an inner chamber defined therein, the head-sized pillow member configured to support the head of the person at variable heights; and

a control device configured with automatic hands-free activation to activate at least one of inflation and deflation of the inner chamber while the person is resting.

29. The pillow system of claim 28, further comprising a sensor, coupled to the control device, configured to sense snoring, acoustically, of the person and configured to automatically activate the control device to facilitate at least one of inflation and deflation of the inner chamber to reduce or eliminate snoring by raising or lowering the head of the individual.

30. The pillow system of claim 28, further comprising a sensor, coupled to the control device, configured to sense snoring-type vibrations of the person and configured to automatically activate the control device to facilitate at least one of inflation and deflation of the inner chamber to reduce or eliminate snoring by raising or lowering the head of the individual.

31. The pillow system of claim 28, wherein the control device comprises a pre-programmed cycle of inflation and deflation of the inner chamber.

32. The pillow system of claim 31, wherein the pre-programmed cycle comprises an intermittent cycle.

33. The pillow system of claim 32, wherein the intermittent cycle is configured to be activated by a sensor configured to sense snoring-type vibrations of the person.

34. The pillow system of claim 32, wherein the intermittent cycle is configured to be activated by a sensor configured to sense snoring, acoustically, of the person.

35. The pillow system of claim 31, wherein the pre-programmed cycle comprises a continuous cycle.